bio-techne
TOCRIS

Print Date: Nov 22nd 2024

Certificate of Analysis

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Product Name: **(+)-JQ1 maleimide** **Catalog No.: 7576** **Batch No.: 1**

IUPAC Name: (*S*)-*N*-(2-(2-(2-(2-(4-(4-Chlorophenyl)-2,3,9-trimethyl-6*H*-thieno[3,2-*f*][1,2,4]triazolo[4,3-*a*][1,4]diazepin-6-yl) acetamido)ethoxy)ethoxy)ethyl)-6-(2,5-dioxo-2,5-dihydro-1*H*-pyrrol-1-yl)hexanamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{35}H_{42}ClN_7O_6S.½H_2O$

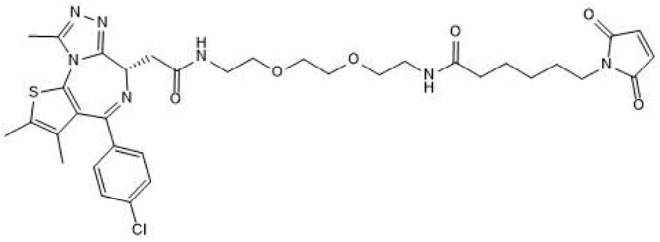
Batch Molecular Weight: 733.28

Physical Appearance: Off-white solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.1% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	57.33	5.91	13.37
Found	56.39	5.84	13.01

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Description:

(+)-JQ1 maleimide is a probe that comprises a cysteine-reactive maleimide connected to the BRD4 ligand, JQ1, via a PEG2 linker. It can be used in the COFFEE method (COvalent Functionalization Followed by E3 Electroporation) in which (+)-JQ1 maleimide is covalently attached to VHL followed by electroporation into live cells. The E3 ligase forms a complex with BRD4 intracellularly and induces its degradation.

Physical and Chemical Properties:

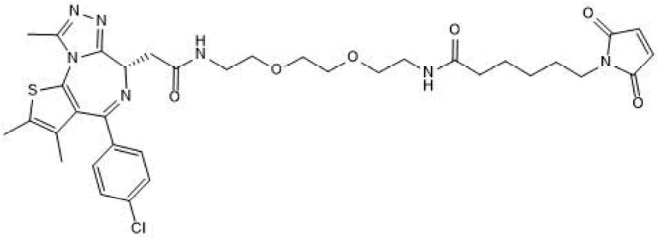
Batch Molecular Formula: $C_{35}H_{42}ClN_7O_6S.½H_2O$

Batch Molecular Weight: 733.28

Physical Appearance: Off-white solid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

This compound is hygroscopic and may absorb atmospheric moisture during prolonged storage, causing the solid to become sticky and/or collapse into a gel or glass-like form. Although purity is unaffected, it may be difficult to extract the full quantity from the vial. In such a situation, we recommend that solutions are made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Pinch *et al* (2022) A strategy to assess the cellular activity of E3 ligase components against neo-substrates using electrophilic probes. Cell Chem.Biol. ***29*** 57. PMID: 34499862.